AMENDMENTS TO THE CLAIMS

1.(currently amended):A server in a system providing information to a user terminal being able to display a map comprising:

a database for holding a specific information document as bubble data, being able (i) change a size or a shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object,

the specific information document

(a) having index information composed of a plurality of elements,

(b) being from out of information documents having attribute information representing attributes of service information to be provided,

(c) in which spatial range information in three-dimensional space is associated with retrieval information for obtaining said service information;

a retrieving unit for retrieving, by using the index information of the specific information document,

(d) specific bubble data including

(d1) coordinate information, and

(d2) display object attribute information

(e) on the basis of a mapping request including an address, a range desired to be displayed, an altitude, an angle of a viewpoint,

(e1) having said coordinate information on an object displayed on said map and said display object attribute information representing attributes of service information to be provided by said object,

2

(e2) said mapping request being transmitted from said user terminal, said user terminal being able to display an information bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in the three-dimensional space; and

a notifying unit for notifying said user terminal of a mapping response having

(f) said spatial range information,

(g) said attribute information, and

(h) said retrieval information, wherein (f) said spatial range information, (g) said attribute information and (h) said retrieval information being included in said specific bubble data which is retrieved in said retrieving unit.

2.(original):   The server according to claim 1, wherein said notifying unit notifies of said mapping response having spatial range information including a similar bubble diameter having a diameter according to a scale of a map displayed on said user terminal and address information.

3.(original):   The server according to claim 1, wherein said database correlates said bubble data with a unique number by which contents of service information of said bubble data can be identified, and holds said bubble data and said unique number.

4.(currently amended):   A server in a system providing information to a user terminal being able to display a map comprising:

3

a database for holding a specific information page as bubble data, <u>the bubble data being able to (i) change a size or a shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object,</u>

the specific information page

(a) having index information, <u>as a DTD (Document Type Definition) information for robot retrieving, which includes a complement data that holds data relating to an access management or an access limitation of the user who complements the index information, which is written with a markup language,</u> composed of a plurality of elements relating to attribute information,

(b) being from out of information pages having attribute information representing attributes of various information relating to an object or service information relating to said various information, and

(c) in which spatial range information composed of latitude, longitude, altitude and a bubble diameter of said object in a three-dimensional space is associated with address information for obtaining said service information;

a retrieving unit for retrieving, <u>by using the index information of the specific home page,</u>

(d) specific bubble data including

(d1) coordinate information, and

(d2) display object attribute information

(e) on the basis of a mapping request <u>including an address, a range desired to be displayed, an altitude, an angle of a viewpoint,</u>

(e1) having said coordinate information in the three-dimensional space composed of latitude, longitude and altitude of an object displayed on said map and said display object attribute information representing attributes of various information relating to said object,

(e2) said mapping request being transmitted from said user terminal, said user terminal being able to display an information bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in the three-dimensional space; and

a notifying unit for notifying said user terminal of a mapping response having

(f) said spatial range information,

(g) said attribute information and

(h) said address information, wherein (f) said spatial range information, (g) said attribute information and (h) said retrieval information being included in said specific bubble data which is retrieved in said retrieving unit.

5.(original):   The server according to claim 4, wherein said notifying unit notifies of said mapping response having spatial range information including a similar bubble diameter having a diameter according to a scale of a map displayed on said user terminal and address information.

6.(original):   The server according to claim 4, wherein said retrieving unit retrieves said specific bubble data in another database connected to a network on the basis of said mapping request.

5

7.(original): The server according to claim 4 further comprising:

a Web information outputting unit for holding user information; and

an address generating unit for generating an address at which said user information held in said Web information outputting unit is held.

8.(original): The server according to claim 4, wherein said database holds an animation element to be displayed on said user terminal in document type definition information.

9.(original): The server according to claim 4, wherein said database holds an application program element for displaying said map in document type definition information.

10.(original): The server according to claim 4, wherein said database holds a communication partner information element relating to a specific communication partner in document type definition information.

11.(original): The server according to claim 4, wherein said database classifies document type definition information according to a plurality of elements, and holds said document type definition information.

12.(original): The server according to claim 4, wherein said database correlates said bubble data with a unique number by which contents of service information of said bubble data can be identified, and holds said bubble data and said unique number.

13.(original): The server according to claim 12, wherein said database holds monitoring bubble data for detecting a moving object and a bubble diameter of said monitoring bubble data based on position information on said moving object, and records a moving object element by which said moving object can be specified in a file held in said database.

14.(original): The server according to claim 4, wherein said database records data relating to a similar bubble diameter having a diameter according to a scale of a map displayed on said user terminal in a file.

15.(original): The server according to claim 4, wherein said database holds at least either one of history information of address information caused by an access of said user terminal and identifier information by which said user terminal can be identified in a file.

16.(original): The server according to claim 4, wherein said database holds data relating to a counter whose count value can be changed in a file.

17.(original): The server according to claim 4, wherein said database holds data relating to an accessible time in a file.

18.(original): The server according to claim 4, wherein said database holds data relating to an application program for displaying a map on said user terminal in a file.

7

19.(original): The server according to claim 4, wherein said database handles address information based on said spatial range information as an electronic mail address, and holds said spatial range information correspondingly to said electronic mail address.

20.(currently amended): A server in a system providing information to a user terminal being able to display a map comprising:

a database for holding a specific home page as bubble data, the bubble data being able to (i) change a size or a shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object, the specific home page

(a) having DTD (document type definition) information, for robot retrieving, which includes a complement data that holds data relating to an access management or an access limitation of the user who complements the DTD information, which is written with a markup language, composed of a plurality of tags relating to attribute information.

(b) being from out of home pages having said attribute information representing attributes of facility information relating to a building or service information of said facility information, and

(c) in which spatial range information composed of latitude, longitude, and altitude and a bubble diameter of said building in a [[the]] three-dimensional space is associated with a uniform resource locator for obtaining said service information;

a retrieving unit for retrieving, by using the index information of the specific information document,

(d) specific bubble data including

(d1) coordinate information, and

8

(d2) display object attribute information

(e) on the basis of a mapping request <u>including an address, a range desired to be displayed, an altitude, an angle of a viewpoint,</u>

(e1) having said coordinate information in the three-dimensional space composed of latitude, longitude and altitude of a building displayed on said map and said display object attribute information representing attributes of facility information relating to a building displayed on said map or service information of said facility information,

(e2) said mapping request being transmitted from said user terminal, <u>said user terminal being able to display an information bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in the three-dimensional space;</u> and

a notifying unit for notifying said user terminal of a mapping response having

(f) said spatial range information,

(g) said attribute information and

(h) said uniform resource locator of said specific bubble data.

21.(original): The server according to claim 20, wherein said notifying unit notifies of said mapping response having spatial range information including a similar bubble diameter having a diameter according to a scale of a map displayed on said user terminal and address information based on said coordinate information included in said mapping request.

22.(original): The server according to claim 20, wherein said database correlates said bubble data with a unique number by which contents of service information of said bubble data can be identified, and holds said bubble data and said unique number.

23.(currently amended): A user terminal in a system providing information to said user terminal being able to display a map comprising:

a map information outputting unit for outputting map information installed beforehand;

a display unit for displaying an image of an object on the basis of said map information outputted from said map information outputting unit;

a transmitting unit for transmitting

(i) a mapping request to a server connected to said user terminal over a network, said mapping request having

(a) coordinate information in the three-dimensional space on said object displayed on said display unit, and

(b) display object attribute information representing attributes of service information to be provided by said object; and

(ii) data including an address, a range, an altitude of a viewpoint or an angle of the viewpoint, which is desired to be displayed on said display unit according to instructions;

a receiving unit for receiving a mapping response having

(c1) spatial range information in the three-dimensional space corresponding to said coordinate information,

10

(c2) attribute information representing attribute information of service information to be provided by said object, and

(c3) retrieval information for obtaining said service information notified from said server in response to said mapping request;

a mapping unit for displaying (d1) an image geometry and (d2) said map, at a position indicated by said spatial range information included in said mapping response on said display unit, said mapping unit representing the object in the three-dimensional space and displaying service information on said displaying unit, the service information being linked with the object; and

a mapping data holding unit for holding (e1) said image geometry and (e2) said retrieval information, said image geometry displayed by said mapping unit being correlated with said retrieval information included in said mapping response.

24.(currently amended):   A user terminal in a system providing information to said user terminal being able to display a map comprising:

a map information outputting unit for outputting map information on an object in the three-dimensional space installed beforehand;

a display unit for displaying an image of said object on a screen on the basis of said map information outputted from said map information outputting unit;

a transmitting unit for transmitting

(i) a mapping request to a server connected to said user terminal over a network, said mapping request having

11

(a) coordinate information in the three-dimensional space composed of latitude, longitude and altitude of said object displayed on said display unit, and

(b) display object attribute information representing attributes of various information relating to said object or service information relating to said various information; and,

(ii) data including an address, a range, an altitude of a viewpoint or an angle of the viewpoint, which is desired to be displayed on said display unit according to instructions to the server connected to said user terminal over a network;

a receiving unit for receiving a mapping response having

(c1) spatial range information composed of latitude, longitude,

(c2) altitude and a bubble diameter of said object in the three-dimensional space corresponding to said coordinate information, and

(c3) address information for obtaining said service information notified from said server in response to said mapping request;

a mapping unit for displaying (d1) an image geometry and (d2) an image of said object, at a position indicated by said spatial range information included in said mapping response on said display unit, on said map which represents the object in the three-dimensional space, and displaying service information on said displaying unit, the service information being linked to the object of; and

a mapping data holding unit for holding (e1) said image geometry and (e2) said address information, said image geometry displayed by said mapping unit being correlated with said address information included in said mapping response.

12

25.(currently amended):   A user terminal in a system providing information to said user terminal being able to display a map comprising:

a map information outputting unit for outputting map information on a building in the three-dimensional space <u>installed beforehand</u>;

a display unit for displaying an image of said building on a screen on the basis of said map information outputted from said map information outputting unit;

a transmitting unit for transmitting a mapping request to said user terminal over a network, said mapping request having

(a) coordinate information composed of latitude, longitude, altitude and a bubble diameter in the three-dimensional space of said building displayed on said display unit, and

(b) display object attribute information representing attributes of facility information relating to said building or service information of said facility information;

<u>(ii) data including an address, a range, an altitude of a viewpoint or an angle of the viewpoint, which is desired to be displayed on said display unit according to instructions to the server</u>;

a receiving unit for receiving a mapping response having

(c1) spatial range information composed of latitude, longitude, altitude and a bubble diameter of said building in the three-dimensional space corresponding to said coordinate information, and

(c2) a uniform resource locator for obtaining said service information notified from said server in response to said mapping request;

13

a mapping unit for displaying (d1) an image geometry and an image of said building, at a position indicated by said spatial range information included in said mapping response, <u>on said displaying unit, on said map which represents the object in three-dimensional space, and displaying service information, the service information being linked to the object</u> on said display unit; and

a mapping data holding unit for holding (e1) said image geometry and (e2) said uniform resource locator, said image geometry displayed by said mapping unit being correlated with said uniform resource locator included in said mapping response.

26.(original): The user terminal according to claim 25, wherein said receiving unit receives said mapping response having spatial range information including a similar bubble diameter having a diameter according to a scale of said map displayed on said display unit and address information based on said coordinate information included in said mapping request.

27.(original): The user terminal according to claim 25 further comprising a detecting unit for detecting position information including a latitude of an object, a longitude thereof, an altitude thereof, a direction thereof, and an inclination angle thereof in the three dimensional space.

28.(original): The user terminal according to claim 27, wherein said detecting unit comprises at least any one of a direction sensor being able to measure the direction, a satellite information receiving unit being able to receive satellite information through the use of a global

14

positioning system, and an inclination sensor being able to measure an inclination angle of said user terminal with respect to the horizontal line.

29.(original):   The user terminal according to claim 25, wherein said transmitting unit transmits said mapping request using an electronic mail address generated on the basis of said coordinate information.

30.(currently amended):   An information providing service system providing information to a user terminal being able to display a map comprising:

a server for holding a specific information page as bubble data,

the specific information page

(a) having document type definition information,

(b) being from out of information pages having attribute information representing attributes of various information relating to an object or service information relating to said various information and said document type definition information composed of a plurality of elements, and

(c) in which spatial range information composed of a latitude of said object, a longitude thereof, an altitude thereof and a bubble diameter thereof in three-dimensional space is associated with address information for obtaining said service information, said bubble data being able to (i) change size or shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object;

said user terminal connected to said server over a network to display said various information retrieved using said bubble data;

15

said server comprising:

a database for holding said bubble data;

a retrieving unit for retrieving, by using the index information of the specific information document, specific bubble data including

coordinate information, and

display object attribute information

wherein said retrieving is performed on the basis of a mapping request transmitted from said user terminal, said mapping request having said coordinate information in the three-dimensional space composed of a latitude of said object, a longitude thereof, and an altitude thereof displayed on said map and having said display object attribute information representing attributes of various information relating to said object or service information relating to said various information, said user terminal being able to display an information bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in the three-dimensional space, viewpoint; and

a notifying unit for notifying said user terminal of a mapping response, said mapping response having said space region information, said attribute information, and said address information, wherein said space region information, said attribute information, and said address information included in said specific bubble data which is retrieved by said retrieving unit;

said user terminal comprising:

a map information outputting unit for outputting map information on an object in the three-dimensional space;

a display unit for displaying an image of an object on a screen on the basis of said map information outputted from said map information outputting unit;

a transmitting unit for transmitting a mapping request to said server connected to said user terminal over a network, said mapping request having

space region information composed of a latitude of said object, a longitude thereof, an altitude thereof, and a bubble diameter thereof in the three-dimensional space of an image of said object displayed on said display unit, and

attribute information representing attributes of various information relating to said object or service information relating to said various information;

a receiving unit for receiving a mapping response having

spatial range information composed of a latitude of said object, a longitude thereof, an altitude thereof, and a bubble diameter thereof in the three-dimensional space corresponding to said space region information, and

address information for obtaining said service information notified from said server in response to said mapping request;

a mapping unit for displaying an image geometry and an image of said object at a position indicated by said space region information included in said mapping response, on said map which represents the object in the three-dimensional space, and displaying service information on said displaying unit, the service information being linked to the object of said map; and

a mapping data holding unit for holding said image geometry and said retrieval information, said image geometry displayed by said mapping unit being correlated with said address information included in said mapping response.

17

31.(currently amended):   An information providing service system providing information to a user terminal being able to display a map comprising:

a database for holding a specific information page as bubble data, the specific information page

(a) having document type definition information,

(b) being from out of information pages having attribute information representing attributes of various information relating to an object or service information relating to said various information and said document type definition information composed of a plurality of elements, and

(c) in which spatial range information composed of a latitude of said object, a longitude thereof, an altitude thereof and a bubble diameter thereof in three-dimensional space is associated with address information for obtaining said service information, said bubble data being able to (i) change size or shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object;

a user terminal connected to said database over a network to display said various information retrieved using said bubble data;

a retrieving unit for retrieving by using the index information of the specific information document, specific bubble data including

coordinate information, and

display object attribute information

said retrieving performed on the basis of a mapping request, said mapping request having said coordinate information in the three-dimensional space composed of a latitude

18

of said object, a longitude thereof and an altitude thereof displayed on said map, and having said

display object attribute information representing attributes of various information relating to said

object or service information relating to said various information transmitted from said user

terminal, said user terminal being able to display an information bubble which represents an

image of spatial range information of the bubble data, overlapped on said map which represents

the object in the three-dimensional space, viewpoint; and

a notifying unit for notifying said user terminal of a mapping response having said

spatial range information, said attribute information and said address information of said specific

bubble data;

said user terminal comprising:

a map information outputting unit for outputting map information on an

object in the three-dimensional space;

a display unit for displaying an image of said object on a screen on the

basis of said map information outputted from said map information outputting unit;

a transmitting unit for transmitting a mapping request to a [[said]] server

connected to said user terminal over a network, said mapping request having coordinate

information composed of a latitude of said object, a longitude thereof, an altitude thereof and a

bubble diameter thereof in the three-dimensional space displayed on said display unit and

attribute information representing attributes of various information relating to said object or

service information relating to said various information to said server [[connected]];

a receiving unit for receiving a mapping response notified from said server

in response to said mapping request, said mapping response having spatial range information

composed of a latitude of said object, a longitude thereof, an altitude thereof and a bubble

19

diameter thereof in the three-dimensional space corresponding to said spatial range information, and having address information for obtaining said service information;

a mapping unit for displaying an image geometry along with an image of said object at a position indicated by said spatial range information included in said mapping response on said display unit, on said map which represents the object in the three-dimensional space, and displaying service information on said displaying unit, the service information being linked to the object of said map and said mapping request being transmitted from said user terminal; and

a mapping data holding unit for holding said image geometry and said retrieval information, said image geometry displayed by said mapping unit being correlated with said address information included in said mapping response.

32.(currently amended):   An information providing service method in a system providing information to a user terminal being able to display a map comprising the steps of:

selecting an object displayed on a map, said map displayed by said user terminal;

transmitting, to a server connected to said user terminal over a network, coordinate information relating to said selected object and display object attribute information representing attributes of service information to be provided by said object from said user terminal, said user terminal being able to display an information bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in three-dimensional space;

20

transmitting spatial range information, attribute information, and address information to said user terminal from said server on the basis of said transmitted coordinate information and display object attribute information; and

displaying, on a display unit of said user terminal, an image geometry along with said object at a position indicated by said transmitted spatial range information.

33.(currently amended): An information providing service method in a system providing information to a user terminal being able to display a map comprising the steps of:

displaying a map on a display unit displaying an image in said user terminal;

selecting an object from map information displayed at said displaying step in said user terminal;

transmitting a mapping request to a server connected to said user terminal over a network, said mapping request having

coordinate information in three-dimensional space relating to said selected object, and

display object attribute information representing attributes of service information to be provided from said user terminal, said mapping request including an address, a range desired to be displayed, an altitude, an angle of a viewpoint;

retrieving by said server specific bubble data including coordinate information and display object attribute information, by using the index information of the specific information document, in which spatial range information composed of a latitude of said selected object, a longitude thereof, an altitude thereof and a bubble diameter thereof in [[the]] three-dimensional space is associated with address information for obtaining service information

21

provided by said object on the basis of said transmitted mapping request, the bubble data being

able to (i) change a size or a shape of itself, (ii) operate a generation, a disappearance and limit

times of access, and (iii) detect a moving object;

notifying to said user terminal from said server [[of]] a mapping response having

said spatial range information and said address information of said retrieved specific bubble data;

displaying an image geometry along with said object at a position indicated by

said spatial range information included in said mapping response on said display unit in said user

terminal; and

providing said image geometry and said map displayed to said user terminal.

34.(original): The information providing service method according to claim 33, wherein

at said map displaying step, said user terminal displays said map on said screen on the basis of at

least either one of the latitude or the longitude obtained.

35.(original): The information providing service method according to claim 33, wherein

said notifying step comprises the steps of:

a changing step of outputting a similar bubble diameter having a diameter

according to a scale of said map displayed on said display unit of said user terminal from said

server on the basis of said coordinate information included in said mapping request transmitted at

said transmitting step; and

an inserting step of inserting said similar bubble diameter outputted at said

changing step into said mapping response in said user terminal.

22

36.(original): The information providing service method according to claim 35, wherein at said changing step, said server changes said similar bubble diameter on the basis of at least any one of the number of accesses, an accessible time and an accessible season.

37.(original): The information providing service method according to claim 33, wherein at said notifying step, said server notifies of information relating to an application program for displaying a map on said user terminal.

38.(original): The information providing service method according to claim 33, wherein at said retrieving step, said server retrieves using a counter whose count value can be changed by an access.

39.(original): The information providing service method according to claim 38, wherein at said retrieving step, said server nullifies a predetermined file when said count is stopped.

40.(original): The information providing service method according to claim 33, wherein at said retrieving step, retrieval is performed on the basis of the number of accesses that said server can receive concurrently.

41.(original): The information providing service method according to claim 33, wherein at said retrieving step, retrieval is performed on the basis of communication partner information relating to a specific communication partner.

23

42.(original): The information service providing method according to claim 33, wherein said retrieving step comprises the steps of:

a reading step of reading communication partner bubble data agreeing with information set beforehand relating to said communication partner in said server;

a present position information receiving step of receiving present position information on said user terminal by said server; and

an approach detecting step of detecting approach of said user terminal and said communication partner to each other by said server on the basis of said communication partner bubble data and said present position information.

43.(currently amended): An information service providing method in a system providing information to a user terminal being able to display a map comprising the steps of:

displaying a map on a display unit displaying an image in said user terminal;

selecting an object from map information displayed at said [[map]] displaying step in said user terminal;

transmitting a mapping request to a server connected to said user terminal over a network, said mapping request , including an address, a range desired to be displayed, an altitude, an angle of a viewpoint having

(a) coordinate information of said selected object composed of a latitude, a longitude, an altitude and a bubble diameter in three-dimensional space, and

(b) display object attribute information representing attributes of various information relating to said selected object or service information relating to said various information from said user terminal, said user terminal being able to display an information

24

bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in the three-dimensional space;

retrieving by said server specific bubble data including said coordinate information and said display object attribute information, by using the index information of the specific information document, in which spatial range information composed of a latitude of said selected object, a longitude thereof, an altitude thereof and a bubble diameter thereof in the three-dimensional space is associated with address information for obtaining various information relating to said object or service information relating to said various information on the basis of said transmitted mapping request, the bubble data being able to (i) change a size or a shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object;

notifying to said user terminal from said server a mapping response having said spatial range information and said address information of said retrieved specific bubble data; and

displaying an image geometry along with said object at a position indicated by said spatial range information included in said mapping response on said display unit of said user terminal on the basis of said notified specific bubble data.

44.(currently amended): An information providing service method in a system providing information to a user terminal being able to display a map comprising the steps of:

recording a specific information page composed of a plurality of elements relating to attribute information, said specific information page from information pages having said attribute information representing attributes of various information relating to an object or service information relating to said various information in a database by said user terminal, said

25

user terminal being able to display an information bubble which represents an image of spatial range information of the bubble data, overlapped on said map which represents the object in three-dimensional space, said bubble data being able to (i) change a size or a shape of itself, (ii) operate a generation, a disappearance and limit times of access, and (iii) detect a moving object;

registering by a [[said]] server, bubble data in which spatial range information composed of a latitude of said object, a longitude thereof, an altitude thereof and a bubble diameter thereof in the three-dimensional space is associated with address information for obtaining said service information on the basis of said information page recorded at said information page recording step; and

providing information generated from said registered bubble data from said server to said user terminal.

45.(original): The information providing service method according to claim 44, wherein said bubble data registering step comprises the steps of:

a specific document type definition information extracting step of extracting by said server plural pieces of specific document type definition information having a predetermined element out of said document type definition information of said information pages recorded at said information page recording step; and

a first registering step of registering by said server said plural pieces of specific document type definition information as said bubble data.

46.(original): The information providing service method according to claim 44, wherein said bubble data registering step comprises the steps of:

26

a recording step of recording by said server said information page recorded at said information page recording step in another database; and

a second registering step of registering by said server said information page recorded at said recording step as bubble data in which spatial range information composed of a latitude of said object, a longitude thereof, an altitude thereof and a bubble diameter thereof in the three-dimensional space is associated with address information for obtaining said service information on said database.